

What is claimed is:

1. A method of distributing a number of reference clocks across a packet network, comprising:
 - providing a basis clock in a master node and one or more slave nodes;
 - encoding multiple reference clocks with respect to the basis clock in the master node to generate numerical information describing the reference clock(s) in relation to the basis clock in the master node;
 - synchronizing the basis clock in each of the slave nodes to the basis clock in the master node using time-stamped synchronization packets; and
 - recovering said one or more reference clocks at the slave nodes using said numerical information describing the reference clock(s) in relation to the basis clock in the master node.
2. A method as claimed in claim 1, wherein each slave basis clock is synchronized to the master basis clock.
3. A method as claimed in claim 2, wherein each slave basis clock is synchronized to the master basis clock using PLL.
4. A method as claimed in claim 1, wherein the reference clocks are encoded within packets.
5. A method as claimed in claim 4, wherein the packets containing encoded reference clocks are transmitted at regular intervals.
6. A packet network comprising:
 - a master node and one or more slave nodes, said master node and said slave nodes having basis clocks;
 - means for numerically encoding a plurality of reference clocks with respect to the basis clock in the master node to generate numerical information describing the reference clock(s) with regard to the master's basis clock;
 - a sender for sending time-stamped synchronization packets to said one or more

slave nodes;

a receiver at the slave nodes for receiving said time-stamped synchronization packets and synchronizing the basis clocks in the slave nodes with the basis clock in the master node; and

means at the slave nodes for recovering said reference clocks using said numerical information describing the reference clock(s) with regard to the master's basis clock.

7. A method as claimed in claim 6, wherein each slave basis clock is synchronized to the master basis clock.

8. A method as claimed in claim 7, wherein each slave basis clock is synchronized to the master basis clock using PLL.

9. A method as claimed in claim 6, wherein the reference clocks are encoded within packets.

10. A method as claimed in claim 9, wherein the packets containing encoded reference clocks are transmitted at regular intervals.